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Two new and surprising records of the ant lion *Euroleon nostras* (Geoffroy in Fourcroy) (Neur.: Myrmeleontidae) in southern England

On the morning of 2 September 1998, Gill Hollamby and DW were surprised to discover an adult ant lion *Euroleon nostras* near to the m.v. light trap in the garden of Dungeness Bird Observatory, East Kent. The specimen was photographed before release and the identification was confirmed, from the resultant images, by CWP. Four days later, CWP received a telephone call from Colin Milkins of St Leonard's-on-Sea, East Sussex, to say that he had encountered an adult of the same species in a spider web in his garden on 6 September 1998. This record was particularly interesting since, apart from it being of a second specimen in the same general area of southern English coast in four days, Mr Milkins was of the opinion that its wing was deformed – something which would suggest that it would be unable to fly and was probably a locally bred insect. This specimen was subsequently seen by CWP; both the identification and the general nature of the insect were confirmed. The specimen is deposited in CWP's collection.

Euroleon nostras was not formally added to the British fauna until 1996 when it was discovered at the RSPB reserve at Minsmere, East Suffolk (Mendel, *Ent. Rec.* **108**: 1-5). Since then, it has been the subject of an intensive study by CWP, funded by English Nature, RSPB and CWP. This work (Plant, 1997. *Investigations into the distribution, status and ecology of the ant-lion Euroleon nostras* (Geoffroy in Fourcroy, 1785) (Neuroptera: Myrmeleontidae) in England during 1997 – unpublished full report in

library at English Nature, Peterborough and an edited version bearing the same title in Plant, 1998. *Suffolk Natural History* 34: 69-79), indicates that a resident population has been present on the Suffolk Sandlings since 1929 but also that the British population of this species is confined to that area. Although adult *E. nostras* are agile fliers amongst the branches of the pine trees (Yasseri, 1991. *Naturschutz und verhalten Zeitschrift Seevögel* 12: 123-126) which they visit to mate, they fly only slowly and are poor dispersers (eg. Brodsky, 1994. *The evolution of insect flight*. OUP). In times of super-abundance when all available breeding habitat is already occupied, gravid females may fly up to about twenty miles or so but this is exceptional. In spite of intensive searching of the east and south coastal areas of Britain, no further colonies of *E. nostras* have been located.

The origin(s) of the two south coast specimens requires some consideration. As a strongly thermophilic species, *E. nostras* is likely to spread north if global warming is a reality, though the English Channel and the lack of sites with both sand and mature Scots Pine trees may present obstacles to the colonisation of Britain. Rather few immigrant Lepidoptera were in evidence in the days immediately surrounding the two records, though a Great Dart *Agrotis crassa* (Hb.) was taken at Dungeness two weeks earlier and an Oak Processionary *Thaumetopoea processionea* (L.) was noted only one week earlier (B. Skinner, *pers. com.*); both probably originated in the Channel Islands where *E. nostras* is present and has recently spread from Jersey to Guernsey and Herm (C. David, *pers. com.*). It seems rather unlikely, however, that this ant lion could migrate over that distance and if immigration is the source, then the adjacent French coastline is a far more likely origin. The St Leonard's specimen at least, however, was teneral, and so must have been bred locally.

The work on the Suffolk Sandlings suggests that, as in continental Europe, *E. nostras* has a two-year life-cycle, spanning three calendar years with eggs laid in August/September of year one and adults emerging in the same period in year three. The St Leonard's specimen must, therefore, result from a gravid female present in 1996 and the same must also apply to the Dungeness specimen if it was locally bred. 1996 was also the year that the species was confirmed as British and though it is stretching a point, this may suggest that 1996 was a year of super-abundance such that the resident population, present since 1929, rose to a sufficiently high level that detection by mere humans became possible. If this is truly the case, then one might reasonably expect a similar situation in Europe, so that the possibility of a few females surviving their random dispersal across the English Channel to encounter by chance a small area of suitable sand in which to lay their eggs becomes more likely. The species is present in most suitable localities along the coast of France (see map in Aspöck, Aspöck & Hölzel, 1980. *Die Neuropteren Europas*. Goeke & Evers); Dungeness to the nearest point of France (Cap Griz-Nez) is 40 kilometres (about 24 miles).

Clearly, it is well worth searching suitable sandy sites in south-eastern coastal England for this species during 1999, especially those with a presence of tall Scots Pines. The larval pits ought to be in evidence by May and are easily spotted when one has "got one's eye in". It may be of note that Camber Sands, a potentially suitable

breeding site, lies mid-way between Dungeness and St Leonard's, though in Suffolk very small areas of sand, especially those on the root plates of fallen trees, are usually more productive and exposed areas are rarely utilised. It would be greatly appreciated if CWP could be informed of any further discoveries of this species in Britain.— COLIN W. PLANT, 14 West Road, Bishops Stortford, Hertfordshire, CM23 3QP and DAVID WALKER, Dungeness Bird Observatory, Romney Marsh, Kent TN29 9NA.

Recent records of *Medon pociferus* (Peyron) (Col.: Staphylinidae) in Dorset

I first came across this beetle on a visit with my wife to Durdle Door in Dorset in March 1990. Several specimens were encountered by digging with hands in coarse shingle where it met with rock at the foot of the cliffs rising above the beach. On a second visit in August 1998 with my friend Tony (A.J.W.) Allen, the beetle was found in the same situation. On both occasions, the beetles were accompanied by examples of *Bembidion nigropiceum* (Marsham), one of the less common members of this carabid genus.

In Britain, *M. pociferus* is known mainly from coastal sites in the south of England where it occurs in shingle at or above high tide mark. As far as Dorset goes, I have a specimen collected by P. Harwood in March 1931 with a locality given simply as "Holworth". The O.S. map marks a village with this name in Dorset a short distance to the west of Durdle Door. The village is about two miles away from the sea but it is likely that Harwood labelled the specimen with the name of the nearest community to the sea at this point.— JOHN OWEN, 8 Kingsdown Road, Epsom, Surrey KT17 3PU.

Investigations into the feeding habits of Kampods (Diplura: Campodidae)

From the literature it is known that kampods are omnivorous yet little is known of the detail of their diet. From 1988 to 1990, inclusive, kampods were sampled in the Kragujevac region of Yugoslavia twice per moth by collecting soil samples in oak *Quercus* forest and in hilly meadows. At each sample station the soil temperature was recorded at 5 cms depth and a separate sample was taken for determination of moisture content. From the samples, 1556 individual kampods were isolated by use of a Tullgren-Berlese apparatus; these comprised four species, namely *Campodea (Dicampa) campestre* Ionescu (160 examples), *C. (D.) frenata* Silvestri (294 examples), *C. (D.) suenisoni* Tuxen (970 examples) and *Podocampa serbica* Karaman & Blesić (132 examples).

Only 898 of the collected kampods contained food in the analysed mid-section of their gut. This food was comprised of four principal types – detritus, soil fungi, algae and arthropod prey. The great majority (94%) contained detritus and this food was represented in samples throughout the year. Less than half this number (460) were feeding on soil fungi. Of this latter group, 337 contained fungal hyphae and 123 contained spores. Fungal species identified in the guts were *Chetonium* sp. and *Melanospora* sp. (both Phycmycetes).